



United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Illinois
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EPA PROPOSES CLEANUP PLAN FOR OPERABLE UNIT 2 AND CHANGES TO THE GROUNDWATER REMEDY FOR OPERABLE UNIT 1 FOR THE PAGEL'S PIT SUPERFUND SITE

This fact sheet will give you...

- ❖ A brief discussion of the Pagel's Pit site background, regulatory history, investigative results, and cleanup objectives
- ❖ A summary of the proposed cleanup plan for OU 2 and proposed changes to the groundwater remedy for OU 1
- ❖ Information on how the public can participate in site cleanup decisions

Public Comment Period

EPA will accept written comments on its recommended cleanup plans for OU 2 and OU 1 during a 30-day public comment period, which is scheduled for:

**August 13 through
September 11, 1999**

Public Meeting

EPA will hold a public meeting to explain the proposed plan for OU 2 and the proposed changes to the groundwater remedy for OU 1. Public comments will also be accepted at the meeting scheduled as follows:

Date: August 25, 1999
Time: 7:00 to 9:00 p.m.
Place: Howard Johnson Hotel
Winthrop Room
3909 11th Street
Rockford, IL 61109

Winnebago County, Illinois

August 1999

INTRODUCTION

The purpose of this fact sheet is to provide local residents and other interested individuals with information about the Pagel's Pit Superfund (Pagel's Pit) site in Winnebago County, Illinois. Specifically, this fact sheet summarizes the U.S. Environmental Protection Agency's (EPA) proposed cleanup plan for Operable Unit 2 (OU 2) and proposed changes to the groundwater remedy for Operable Unit 1 (OU 1) at the site.

EPA is issuing the proposed cleanup plan as part of its public involvement responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). This fact sheet summarizes information presented in the remedial investigation (RI) and feasibility study (FS) reports dated 1991 and in other documents contained in the Administrative Record for the Pagel's Pit site. EPA encourages the public to review these documents to gain a more comprehensive understanding of the site and Superfund activities that have been conducted. The Administrative Record is available at the Rockford Public Library at 215 North Wyman Street and at the EPA Region 5 office in Chicago.

SITE BACKGROUND

The Pagel's Pit Site is located in Winnebago County in a rural area 5 miles south of Rockford, Illinois. The site occupies about 100 acres and is bounded on the west by Kilbuck Creek and on the east by Lindenwood Road (see figure).

This operating landfill is located at a former sand and gravel quarry. It has been constructed and filled in several sections. Development initially occurred in an east to west direction. The western one-third has now been completed and the final cover has been installed.

The landfill has been in operation since 1972 and will reach capacity in 1 to 2 years. Landfill wastes cover approximately 42.5 acres. Municipal refuse and sewage treatment plant sludge are the primary wastes accepted at the site. Illinois special wastes (industrial process wastes, pollution control wastes, and hazardous wastes defined by the Illinois Environmental Protection Act) have also been disposed of at the landfill. Land around the Pagel's Pit site is used for agricultural, residential, commercial, and industrial purposes. A new waste disposal unit is being developed south of the site.

In October 1984, the Pagel's Pit site was proposed for inclusion on the National Priorities List (NPL) because contaminants such as arsenic, cadmium, and bis (2-ethylhexyl)phthalate were detected in groundwater samples collected near the site. The NPL is a list of sites throughout the country that are eligible for investigation and cleanup under the Superfund Program. The site was officially added to the NPL in June 1986.

EPA identified some potentially responsible parties (PRPs) who contributed to the contamination at the Pagel's Pit site. In October 1986, EPA reached an agreement with some of the PRPs in which these PRPs agreed to conduct a long-term contamination and cleanup study.

INVESTIGATIVE RESULTS

From 1988 through 1991, an RI was conducted at the site to determine the nature and extent of contamination and identify cleanup options. This investigation included areas on and around the Acme Solvent Reclaiming, Inc. (Acme Solvent) site located east of the Pagel's Pit site. Toward the end of the investigation, the Pagel's Pit site was separated into two parts, referred to as operable units (OUs). OU 1 includes the wastes that have been disposed of at the landfill and the contaminated groundwater except for the groundwater in the southeast corner of the site.

OU 2 is the groundwater in the southeast corner of the site.

An aquifer is a zone or layer of rock, soil, sand, or other porous material, found below the ground surface, that is capable of holding and yielding useable quantities of water.

The RI indicated volatile organic compounds (VOCs) in the shallow aquifer at and near both the Pagel's Pit and Acme Solvent sites. The highest concentrations of VOCs were found in wells on or near the Acme Solvent site and in the southeast corner of the Pagel's Pit site. Because of the levels of contaminants found in the groundwater west of Lindenwood road, the Pagel's Pit site was determined to present

A VOC is an organic compound composed of carbon, hydrogen, and other elements that easily evaporate when exposed to air. VOCs evaporate more quickly from surface water than from groundwater. Examples of VOCs include lighter fluid, paint thinner, and gasoline components.

potential risks to human health. The greatest risk identified was the potential future use of groundwater as a water supply source.

CLEANUP OBJECTIVES

Based on the FS report for the site prepared by the PRPs, EPA developed the following remedial action objectives to aid in the selection of cleanup plans for OU 1 and OU 2 at the Pagel's Pit site:

1. Restore the aquifer outside the waste disposal area, and the area immediately adjacent to it, to drinking water standards
2. Minimize future migration of groundwater contamination
3. Reduce or eliminate the potential for future groundwater contamination
4. Reduce or eliminate the threat of direct contact with contaminated soils and wastes
5. Minimize or eliminate the potential for contaminant migration to groundwater and surface water
6. Minimize or eliminate the threat of exposure to landfill gas

In 1991, EPA issued a Record of Decision (ROD) for OU 1 that specified a cleanup plan consisting of the following eight elements:

- ◆ Construction of a sanitary landfill cover
- ◆ Construction of a groundwater extraction system along the west side of the site
- ◆ Treatment of the extracted groundwater by carbon adsorption or air stripping
- ◆ Treatment of inorganic contaminants in the extracted groundwater, if necessary, prior to carbon adsorption or air stripping
- ◆ Implementation of a leachate removal system that discharges to the local publicly owned treatment works
- ◆ Implementation of a gas removal system
- ◆ Use of deed restrictions to prevent groundwater usage from the affected aquifer
- ◆ Monitoring and maintenance of all remedial action systems

These elements address all of the remedial action objectives for the Pagel's Pit site except for the minimization or elimination of the potential for contaminant migration from OU 2 in the southeast corner of the site to groundwater outside of OU 2.

PROPOSED PLAN FOR OU 2

The direction of groundwater flow at the Pagel's Pit site is generally toward the west. A pump-and-treat system has been installed for the Acme Solvent site.

As a result, the VOC concentrations in the groundwater have decreased. Also, that system should reduce the migration of contamination from the Acme Solvent site to the Pagel's Pit site.

The eventual capping and leachate removal required by the 1991 ROD for the landfill at the Pagel's Pit site should reduce or eliminate leakage of leachate from the landfill to the southeast corner of the site.

Leachate is a liquid, that has passed through contaminated soil or landfill wastes and has accumulated contaminants from the soil or waste.

The southeast corner of the Pagel's Pit site is owned by the present landfill operator, who has control over the use of this property. Deed restrictions have been placed on the property to prevent use of groundwater as a water supply source. A new landfill is being developed south of the present landfill, which will further restrict possible future uses of the southeast corner property and the property surrounding it.

EPA has proposed that a "no action" alternative be used for the groundwater contamination in OU 2 on the southeast corner of the site. Since the groundwater to the west of the southeast corner, where the southeast corner groundwater is flowing, is already contaminated, the best course of action for the southeast corner groundwater is to address it with the other contaminated groundwater rather than separately.

PROPOSED REMEDY CHANGE FOR OU 1

Since the issuance of the 1991 ROD, EPA has determined that a groundwater pump-and-treat system along the western edge of the waste disposal area would be more extensive than had been anticipated. More water would have to be pumped because the aquifer in the area yields larger amounts of water than had been envisioned. In addition, the treatment system would probably have to be more extensive because of the amounts of ammonia in the groundwater; most likely, the ammonia is from the leachate. The

concentration of ammonia in the treated water would have to be below a specified level before this water could be discharged to a surface water body. The groundwater was not analyzed for ammonia during the RI.

Also, since the 1991 ROD, the landfill operator has acquired property on the western side of the creek, west of the landfill, where a replacement wetland has been built. Since the operator has control over this land, it is not necessary that the contamination be immediately contained so closely to the waste disposal area.

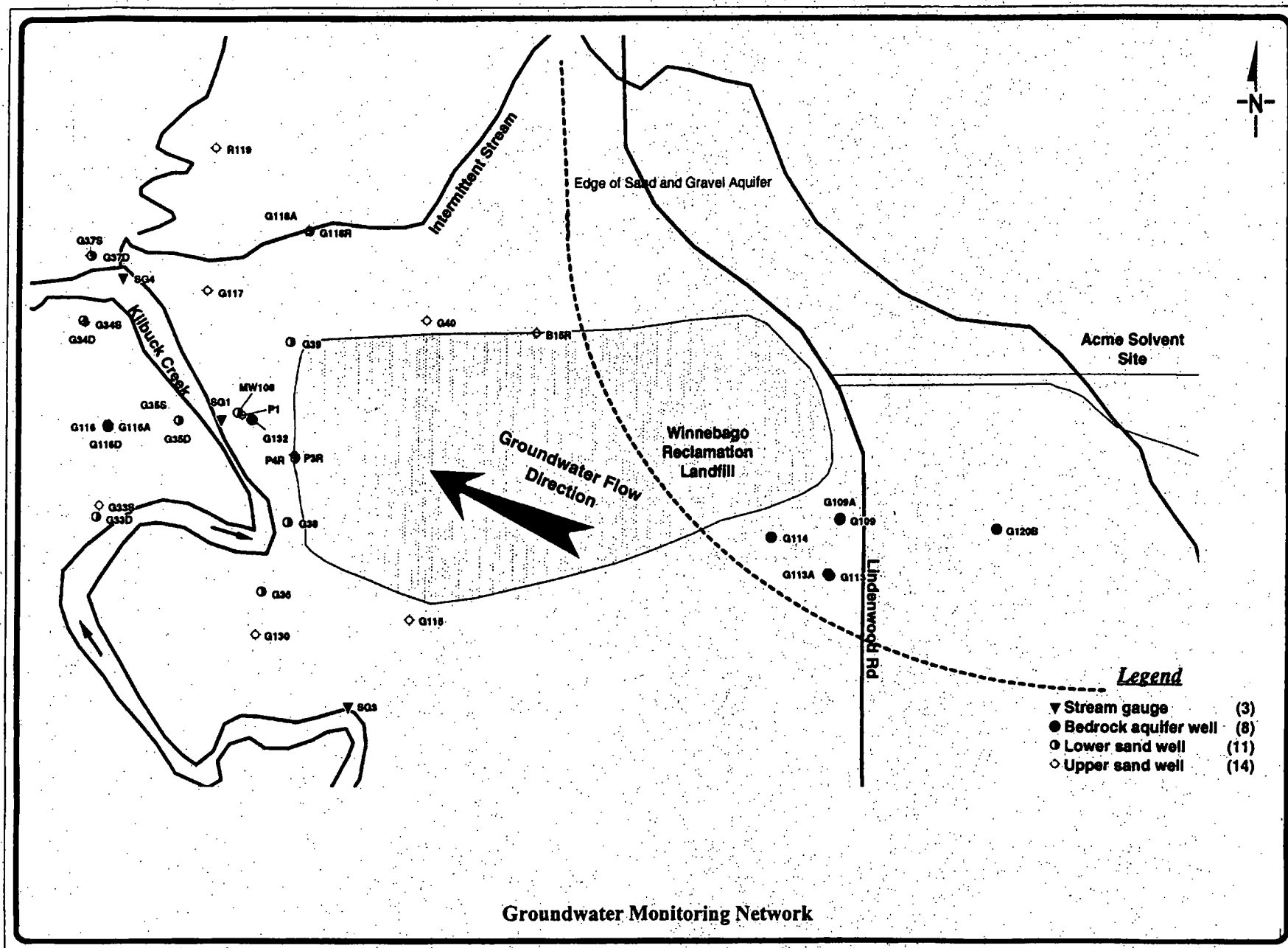
The western third of the landfill has been capped, and more intensive leachate removal has begun. The rest of the landfill will be capped within the next year or two and this will greatly reduce or eliminate the source of contamination in the groundwater on the Pagel's Pit site. The level of VOC contamination in groundwater along the western border of the landfill is not high compared to past VOC concentrations in groundwater at the Acme Solvent site. The operation of the pump-and-treat system at the Acme Solvent site will reduce the contamination reaching the Pagel's Pit site.

EPA proposes monitored natural attenuation as the cleanup remedy for the groundwater at the western end of the landfill because the sources of the contamination are being eliminated or greatly reduced through capping the landfill, removing the leachate, and operating the pump-and-treat system at the Acme Solvent site.

This remedy includes deed restrictions for the property west of Kilbuck Creek and a contingent remedy if the groundwater contamination does not decrease to an acceptable level. The deed restrictions will prevent the use of the groundwater as a drinking water source. The

contingent remedy would be a system that would be initiated to further decrease the levels of contamination in the groundwater or prevent the migration of the contamination toward the west. This remedy might be similar to that of the 1991 ROD or it might be a remedy applied to the groundwater in place. The remedy selected would have to be acceptable to EPA and the Illinois Environmental Protection Agency (Illinois EPA). The contingent remedy would be implemented when it was determined to be necessary by EPA, Illinois EPA, or the site operator.

Monitored natural attenuation (MNA) occurs when natural processes, within a carefully controlled and monitored site cleanup approach, cause contaminants to decrease in concentration through time. MNA reduces contaminant concentrations to levels that are protective of human health and the environment.



EVALUATION OF REMEDIES

In selecting the cleanup remedy for OU 2 and the change in the remedy for OU 1, cost-effectiveness is an important consideration but not the only consideration. Since the sources of the groundwater contamination are being greatly reduced through capping the landfill, removing the leachate, and intercepting the contaminated groundwater from Acme Solvent site, it is reasonable to monitor the groundwater west of the landfill when it is expected that the levels of contamination will decrease through natural processes and source containment. Although it will probably take longer for the groundwater to reach the levels necessary for it to be useable with monitored natural attenuation than a remedy actively addressing the groundwater, this additional time is not expected to be unreasonable.

The preferred remedies can change in response to public comment or new information. Based on the information available at this time, EPA believes the preferred remedies are protective of human health and the environment, comply with all applicable or relevant and appropriate requirements (ARARs), are cost-effective, and utilize permanent solutions and alternative treatment technologies to the maximum extent practicable. Treatment systems will not be a principal element of the remedies because of the size of the landfill and the fact that no hot spots (small areas of a greater threat or a major source of contamination) have been identified.

Cleanup Plan Evaluation Criteria

EPA uses the nine criteria described below to evaluate and select cleanup remedies.

1. *Overall protection of human health and the environment* -- addresses the extent to which the remedy reduces, eliminates, or controls threats to human health and the environment.
2. *Compliance with Applicable or Relevant and Appropriate Requirements* -- addresses whether the remedy meets the federal and state regulations and requirements
3. *Long-term effectiveness and permanence* -- addresses the reliability of the remedy and its ability to be successful over time
4. *Reduction of contaminant toxicity, mobility, or volume* -- addresses the remedy's ability to effectively reduce harmful effects of contaminants, the ability of contaminants to move or spread once the remedy is implemented, and the remedy's ability to reduce the overall amount of contaminants
5. *Short-term effectiveness* -- addresses the time needed to implement the remedy and associated risks posed to workers, residents, and the environment during implementation of the remedy
6. *Implementability* -- addresses the practicability and difficulty of construction and the availability of goods and services to carry out the remedy
7. *Cost* -- addresses the capital, operation and maintenance, and total costs of the remedy over time in terms of today's dollars
8. *State Acceptance* -- addresses whether the state agrees with EPA's analyses and recommendations of studies and evaluations
9. *Community Acceptance* -- addresses the public's comments and concerns about the remedy

NEXT STEP

EPA will accept written comments on the proposed remedies during a public comment period from August 13 to September 11. EPA will evaluate public comments received during the public comment period before selecting final cleanup plans

for the site. The final cleanup plans for OU 2 and OU 1 will be described in a ROD. After the remedies are chosen and the ROD is signed, the remedies will be implemented.

PUBLIC COMMENT INVITED

Comments provided by residents and other interested individuals are valuable in helping EPA decide on the correct remedies for the site. EPA encourages you to share your views about the proposed remedies for the site in the following two ways:

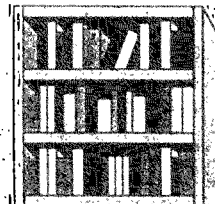
1. You may send your comments to Gordon Blum at the address listed below. Comments must be postmarked by September 11, 1999.
2. You may submit oral and written comments during the public meeting scheduled for August 25 at 7:00 p.m. at the Howard Johnson Hotel, 3909 11th Street, Rockford, Illinois. A court reporter will be present to record oral comments.

FOR MORE INFORMATION

To learn more about the Pagel's Pit Superfund site or the Superfund process, please review the information repository maintained for this site at the following addresses:

Rockford Public Library
215 North Wyman Street
Rockford, IL 61101

U.S. Environmental Protection
Agency
Region 5 Records Center
77 West Jackson Boulevard, 7th Floor
Chicago, IL 60604



An Administrative Record that contains information that is the basis for site cleanup decisions has also been established at the Rockford Public Library and the U.S. EPA Region 5 office in Chicago.

For further information on the Pagel's Pit Superfund site, please contact the following:

Gordon Blum
U.S. Environmental Protection Agency
Community Involvement Coordinator
Office of Public Affairs (P-19J)
77 West Jackson Boulevard
Chicago, IL 60604
(312) 353-8501
(312) 353-1155 (fax)
blum.gordon@epa.gov

Bernard Schorle
U.S. Environmental Protection Agency
Superfund Division (SR-6J)
77 West Jackson Boulevard
Chicago, IL 60604
(312) 886-4746
schorle.bernard@epa.gov

Toll-Free Telephone No.: (800) 621-8431

Mailing List Additions and Corrections

If you did not receive this fact sheet in the mail, you are not on the EPA's mailing list for the Pagel's Pit Superfund site. If you would like to have your name added to the list, please fill out this form and mail it to the following:

Gordon Blum
U.S. Environmental Protection Agency
Community Involvement Coordinator
(P-19J)
77 West Jackson Boulevard
Chicago, IL 60604

Name: _____
Address: _____
City: _____
State: _____ Zip Code: _____
Telephone: _____

☐ Check here to have your name removed from the EPA mailing list.

You may use the space below to write your comments, then fold and mail or fax your comments to Gordon Blum at (312) 353-1155. Comments must be postmarked on or before September 7, 1999. If you have any questions, please contact Gordon Blum at (312) 353-8501 or toll free at (800) 621-8431. Comments may also be sent via e-mail to the following address:
blum.gordon@epa.gov

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